

LISTING OF CLAIMS

1 (CURRENTLY AMENDED). A digital camera module, comprising:

a barrel having external threads on an external surface thereof, with one or more lenses set in the barrel, and a magnetic assembling plate separate from and mounted to an upper surface of the barrel;

a camera module housing assembled with the barrel, the housing having an internally threaded opening through which the barrel is mounted to the housing;

an image sensor converting an image of a subject into an electrical image signal; and

a substrate having an electronic circuit, with the image sensor installed on the substrate.

2 (PREVIOUSLY PRESENTED). The digital camera module according to claim 1, wherein the assembling plate is made of a metal sheet which is magnetically attracted to a magnet.

3 (CURRENTLY AMENDED). The digital camera module according to claim 1, wherein the assembling plate is provided with an opening allowing light beams to reach the lens of the barrel and a baffle [[so as]] arranged to prevent an incidence of undesired light beams to the lenses of the barrel.

4 (ORIGINAL). The digital camera module according to claim 2 or 3, wherein the assembling plate is provided with a plurality of tool holes so as to hold the barrel during a process of assembling the barrel with the housing.

5 (PREVIOUSLY PRESENTED). The digital camera module according to claim 1, wherein the assembling plate is attached to the upper surface of the barrel by an adhesive.

6 (WITHDRAWN). A method of assembling a digital camera module, comprising:

holding a plurality of barrels, each having a magnetic assembling plate, in a jig having a first magnet;

assembling one or more lenses in each of the barrels held in the jig so as to align the lenses in the barrel;

attaching each of the barrels having the lenses to an assembling handler having a second magnet; and

assembling each of the barrels to a camera module housing by manipulating the assembling handler.

7 (WITHDRAWN). The method according to claim 6, further comprising:
measuring a lens alignment after the lenses are assembled in each of the barrels.

8 (WITHDRAWN). An apparatus for assembling a digital camera module, comprising:

a jig having a first magnet to hold a plurality of barrels each having a magnetic assembling plate at an end thereof; and

an assembling handler having a second magnet at an end thereof to be magnetically attached to the magnetic assembling plate of each of the barrels, the assembling handler being manipulated to assemble the barrel with a camera module housing.

9 (WITHDRAWN). The apparatus according to claim 8, wherein the jig has a plurality of barrel holding holes arranged in a line so as to hold the barrels such that a part of each of the barrels is seated in each of the barrel holding holes, with the first magnet placed at bottom surfaces of the barrel holding holes.

10 (WITHDRAWN). The apparatus according to claim 8, wherein the assembling plate of each of the barrels is provided with a tool hole, and the second magnet of the assembling handler has an engaging projection to be inserted into the tool hole of the assembling plate.

11 (PREVIOUSLY PRESENTED). The digital camera module of claim 1 wherein said assembling plate is provided with a plurality of tool holes to hold the barrel while the barrel is attached to the housing.

12 (CURRENTLY AMENDED). A digital camera module comprising:

a barrel having a top surface;

a separate assembling plate attached to said top surfaced and shaped to be engaged during the assembly of the digital camera module for manipulating the barrel;

wherein said assembling plate is made of a magnetic material and is used to hold said barrel during assembly;

a lens set in the barrel;

a tubular camera module holding said barrel; and

a substrate having image sensor disposed thereon, with said module being attached to said substrate in a position selected to allow an image to be focused by said lens unto said image sensor;

wherein said barrel includes a baffle arranged and constructed to prevent the incidence of undesirable light beams on said lens.

13 (PREVIOUSLY PRESENTED). The digital camera module of claim 12 wherein said barrel has a cylindrical shape with one end forming said top surface.

14 (PREVIOUSLY PRESENTED). The digital camera module of claim 13 wherein said baffle has a disc shaped body with a central opening.

15 (PREVIOUSLY PRESENTED). The digital camera module of claim 14

wherein said central opening has a sidewall has an inner sidewall having at least a first diameter and a second diameter bigger then said first diameter.

16 - 20 (CANCELLED).